

# Project Design Phase-I - Solution Fit

**Project Title: IoT Based Safety Gadget for Child Safety Monitoring & Notification**

**Team ID: PNT2022TMID38800**

Define CS, fit into C	<b>1. CUSTOMER SEGMENT(S)</b> <b>CS</b> <p>In our system, we automatically monitor the child in real time using Internet of Things, with the help of GPS, GSM, and Raspberry Pi. This system requires network connectivity, satellite communication, and high-speed data connection when we use web camera and GPS to lively monitor.</p>	<b>6. CUSTOMER CONSTRAINTS</b> <b>CC</b> <p>In this system, the collected values from every sensor like temperature sensor, pulse rate detection sensor, metal detection sensor, and the location value from GPS are used to detect the status of the child and alerts the respective guardians using GSM accordingly.</p>	<b>5. AVAILABLE SOLUTIONS</b> <b>AS</b> <p>Our proposed system consists of Raspberry Pi microprocessor in which all other sensors, GPS and GSM are integrated. The users are required to register using their credentials to use the application. The device will be given to the children for monitoring them regularly. We will feed the boundary value while writing code for the system and we control it using GPS for that device which is also known as Geo Fencing. These data are stored in the server.</p>	Explore AS, differe
	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <b>J&amp;P</b> <p>The child safety wearable device can act as a smart device. It provides parents with the real-time location, surrounding temperature, SOS light along with Distress alarm buzzer for their child's surroundings and the ability to locate their child or alert bystanders in acting to rescue or comfort the child.</p>	<b>9. PROBLEM ROOT CAUSE</b> <b>RC</b> <ul style="list-style-type: none"> <li>• Parents Cannot access contact information of child.</li> <li>• Children runs away from target place.</li> </ul>	<b>7. BEHAVIOUR</b> <b>BE</b> <p>In our system, we automatically monitor the child in real time using Internet of Things, with the help of GPS, GSM, and Raspberry Pi. This system requires network connectivity, satellite communication, and high-speed data connection when we use web camera and GPS to lively monitor.</p>	
Identify strong TR & EM	<b>3. TRIGGERS</b> <b>TR</b> <p>Basically, children cannot complain about abasements which they face in their daily life to their parents. They can't even realize what actually happens to them at their age. It is also difficult for parents to identify their children are being abused.</p>	<b>10. YOUR SOLUTION</b> <b>SL</b> <p>A portable device which will have a pressure switch. As soon as the person senses any insecurity from a stranger, he/she can then put pressure on the device by squeezing or compressing it. Instantly the pressure sensor senses this pressure and a conventional SMS, with the victim's location will be sent to their parents/guardian cell phone numbers stored in the device while purchasing it, followed by a call.</p>	<b>8. CHANNELS of BEHAVIOUR</b> <b>CH</b> <b>8.1 ONLINE</b> <p>Promoting through social media. With the help of social media entrepreneurs/influencer.</p>	p
	<b>4. EMOTIONS: BEFORE / AFTER</b> <b>EM</b> <p>Before: Prevent children before being attacked, an autonomous real-time monitoring system is necessary for every child out there.</p> <p>After: Increased the level of confidence and feel secured</p>		<b>8.2 OFFLINE</b> <p>Newspaper advertisements.</p>	